STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION
CRUISE SHIP PROGRAM

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Alaska Cruise Association
Attn: John Binkley
360 K Street, Suite 300
Anchorage, AK 99501-2308

Northwest CruiseShip Association
Attn: John Hansen
100-1111 W Hastings Street
Vancouver, BC V6E2J3

Subject: Large Commercial Passenger Vessel Wastewater Discharge General Permit No. 2007DB002, Source Reduction Evaluation

Dear Mr. Binkley & Mr. Hansen:

The Alaska cruise industry has requested guidance on the goals and content of the Source Reduction Evaluation found in Section 1.9 of the Large Commercial Passenger Vessel Wastewater Discharge General Permit. In order for a permittee to be granted approval to discharge under the interim effluent limits, the permittee must submit a Source Reduction Evaluation that is approved by the Department.

Goals of Source Reduction Evaluation

1. Identify the potential sources for each parameter (e.g. ammonia, copper, nickel, and zinc) that the permittee has requested approval for discharge under the interim effluent limits.

2. Establish an action plan and timeline to meet the long term effluent limits.

3. Report on the success or failure of actions that were implemented to meet the long term effluent limits.

Guidelines for the Source Reduction Evaluation

Source Identification

The Source Reduction Evaluation (SRE) must identify the likely source(s) of the pollutant(s) for which they have requested interim effluent limits.

At a minimum, the SRE should identify potential sources of pollutant loading, including, as appropriate, the identification of:

1. cleaning products, rodenticides, pesticides, or other industrial products that that may be the source of the loading;

2. other sources such as drinking water supplies; and

3. any leaching of metals that may be occurring in the vessel's piping systems.

In addition, in order to characterize the quality of the influent, a Source Reduction Evaluation may:

1. Identify chemicals that may wind up in the wastewater and be treated by the vessel's wastewater treatment system.

2. Address whether de-greasers or other internal pipe cleaners are used in the hotel accommodation graywater and sewage piping systems.

3. Specify all of the vessel systems that deliver influent to the wastewater treatment systems. The Department will not accept internal dilution as an acceptable source reduction strategy.

4. Identify the materials that are used for the graywater, sewage, and potable water systems. Discuss and identify any corrosion protection installations or methods.

5. Discuss the characteristics of the technical or condensate water (e.g. soft / hard etc). Identify the materials used for the technical water piping system.

6. Discus the potable water production options and characteristics of any potable water produced on board. Identify any additives that are added to the potable water.

7. Identify the location and volume of bunkered water that is transported to Alaska and the bunker water locations and volumes that are bunkered while in Alaska.

8. Identify the mixing ratio of sewage and graywater influent before it is treated in the wastewater treatment system. Discuss whether changing this mixing ratio affects the effluent quality.

9. Identify the materials used in the internal coating system of the potable water holding tanks and their potential effect on the effluent levels of the pollutants of concern.

10. Identify the materials used in the internal coating system of the holding tanks for the untreated influent and the wastewater treatment system process tanks and the potential effect on the effluent levels of the pollutants of concern.

11. Discuss the impact that operational or equipment changes to reduce the pollutant of concern might have on other environmental or public health systems or requirements.

Implementation Plan

The Source Reduction Evaluation (SRE) must also include an implementation plan and schedule to meet the long term effluent limits. The SRE may include both operational and equipment changes. The SRE must include a description of how the operational and/or equipment changes will reduce the concentration of specific pollutants. This portion of the SRE may include items such as:

1. the adoption of operational practices to reduce pollutant sources such as use of alternative cleaning products; and

2. substitutions of non-chemical methods for methods that involve chemicals.

This portion of the Source Reduction Evaluation should also address the feasibility of the use of new or additional technologies to reduce the levels of the pollutant in the wastewater effluent. The permittee may detail the efforts that are being made to research existing or emerging technologies. This research effort could be tailored to the specific vessel, the specific cruise line, or apply to the industry as a whole. Such research should include at a minimum an examination of the space requirements, installation and maintenance costs, reliability, energy requirements, specific pollutant removal rates and any other pertinent information. The permittee must submit the study results to the Department.

In addition, the permittee may detail any new technology that they are installing on their vessel or a vessel with similar operations and/or wastewater treatment system.

Reporting

A permittee that is approved to discharge in compliance with the interim effluent limits must submit an annual progress report within two weeks of the end of the

calendar year. This report must include the items identified in section 1.9.12 of the permit, including the results of any research study or the implementation of new technologies to reduce the levels of the pollutants of concern. It should also summarize all efforts that were taken in the previous season to reduce the concentration of specific pollutants and the results of the efforts.

We appreciate your cooperation in our efforts to identify and reduce potential sources of pollution to Alaska's waters.

Sincerely,

For

Denise Koch
Cruise Ship Program Manager